

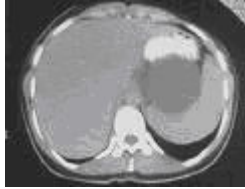
LAPAROSCOPIC MANAGEMENT OF HYDATID CYST OF LIVER

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Abstract :

Surgery has long been considered the first choice in patient with liver hydatid cyst. The rapid development of laparoscopic techniques has encouraged surgeons to replicate principles of conventional surgery using a minimally access approach.

Treatment of the liver hydatid cyst by laparoscopy started from 1992 and it has confirmed its use in liver hydatid cyst that it became safe and effective in selected patient and offer all the advantages of laparoscopic surgery.

Introduction :

Hydatid cyst is caused by *Echinococcus granulosus*. The humans are the accidental intermediate host. The most common sites are the liver account for 60% ,the lung account for 30% although it may develop at other sites including kidney, bone, brain and heart. The prevalence of hydatid cyst varies round the world but is endemic in the Middle East and Africa ..The infection can be asymptomatic ,symptomatic and even death of the patient. Classification of hydatid cyst are very important in order to facilitate selection of treatment modalities. We have two types of classification, the first one is Gharbis classification [type I, II, III, IV, V], the second one is WHO classification. The complication of hydatid cyst include cystic rupture, spillage intraperitoneal, pressure on contiguous structure, anaphylactic reaction, secondary infection and obstructive jaundice;;;The chemotherapy treatment has been disappointing and for this reason surgery remain the mainstay of treatment for hydatid cyst especially by laparoscopic surgery other than open surgery.

Material and Methods :

we reviewed many articles from 1992 to 2006 and the search through google, pubmed and springerlink.com .In fact there is no randomized clinical trials between laparoscopic open surgery but we have reviewed groups of patient had underwent laparoscopic surgery, percutaneous surgery and open surgery... We have noticed through study these articles that the patients who had underwent laparoscopic surgery they had less morbidity, less complication ,short stay in hospital and early recovery other than the patients who had underwent open surgery and percutaneous drainage

Discussion :

Hydatid cyst is a parasitic disease caused by tape worm *Echinococcus granulosus*. Diagnosis can be established by combination of the history and the physical examination, imaging techniques such as ultrasound and cat scan, serological assay, and immunological assay techniques.. All the available data, which present in all articles, suggest that the conservative management by using chemotherapy drugs ,such as albendazole, in hydatid disease yield poor results and in the majority of patients the therapy fail or disease recurs so that the surgery is still the gold standard for achieving complete cure of liver hydatid disease. The desired goals in the treatment of hepatic hydatid disease include elimination of the parasite and prevention of recurrent disease with minimum morbidity and mortality. Selection of the

most appropriate treatment to achieve those goals depend on the condition of the patient, the nature of the cyst considering number, size, site, and presence of cystobiliary communication, and the availability of an experienced surgeon and interventional radiologist. The patient related factors include age, pregnancy, patient preference, and associated diseases that preclude surgical intervention. Before any therapeutic intervention, the nature of the cysts should be classified based on ultrasound images, and CT screening must be done to provide necessary information. The size, number, and site of the cysts and the nature of the cyst content, as well as any associated complicating factors will then guide the therapeutic decision making process. Therapeutic modalities range from systemic chemotherapy to conventional or laparoscopic surgical interventions to percutaneous drainage with or without medical therapy. Surgery remains the cornerstone of the treatment for hepatic hydatid cysts, whether laparoscopic or open. However, drug treatment with percutaneous drainage is recommended as good alternative to surgery, especially in selected patients with non-complicated cyst and patient who have contraindication for surgery. The open surgery have 2 types either radical as hepatic resection or conservative as unroofing, simple drainage, closure of edges of the residual cavity without drainage, capitonnage, furrowing the margins of the cavity by introflexion oromentoplasty in the cavity. The group of the patients in the articles who had underwent open surgery, they had high morbidity, complication such as biliary fistula, cholangitis, spillage into abdomen cavity, vessel injury, sepsis, anaphylactic reaction, wound infection, recurrence, and mortality. The percutaneous drainage of liver hydatid cyst which called PAIR (puncture, aspiration, injection, and aspiration) was introduced in 1980, this technique is safe and efficacy but it is limited in its use, it has indication and contraindication for its use. The patients who had underwent PAIR also they had less complication and high morbidity, therefore, we use PAIR when the patient is not fit to the surgery. Regarding laparoscopic surgery in management of liver hydatid cyst became more safe, popular. The results were encouraging where there was no mortality, no recurrences, no wound infection, very low morbidity, early recovery, and no complications were mentioned. The results were encouraging due to the following factors; a) experience the surgeon who is well trained in field of laparoscopy b) development of new instruments such as 1) perforator instrument 2) a new transparent cannula 18 in diameter with beveled tip 3) PHS; it is called as palanivelu hydatid system (special trocar-cannula system). it is successful in preventing spillage, evacuating the content of hydatid cyst, performing transcystic fenestration and for dealing with cystobiliary communication. 4) aspiration of parasitic cyst by laparoscopic needle through a large cannula connected to Vacuum. C) the increase in cystic pressure is equal to or less than the increase in intraperitoneum pressure which prevent spillage from the cyst

Conclusion :

Laparoscopic treatment of the liver hydatid cyst is safe and effective in selected patients and offers all the advantage of laparoscopic surgery with low morbidity and early recovery.

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